

CLAIMS:

1. An electrical machine including an armature bar mounted in a slot in a core, a lateral ripple spring being inserted between the bar and the core, wherein conformable material occupies void space between one side surface of the bar and the corresponding side surface of the slot so as to reduce the thermal resistance between the bar and the core, the conformable material filling the void space and being substantially uncompressed.
2. An electrical machine as claimed in claim 1, in which the conformable material is on the side of the bar opposite to the lateral ripple spring.
3. An electrical machine as claimed in claim 1, in which the conformable material is on the same side of the bar as the lateral ripple spring.
4. An electrical machine as claimed in claim 3, in which the conformable material occupies troughs on at least one side of the lateral ripple spring.
5. An electrical machine as claimed in claim 4, in which the said troughs extend along the longitudinal direction of the bar.
6. An electrical machine as claimed in claim 4, in which the said troughs extend transversely or obliquely to the longitudinal direction of the bar.
7. An electrical machine as claimed in any preceding claim, in which there is conformable material on both sides of the bar.
8. An electrical machine as claimed in any preceding claim, in which the lateral ripple spring is electrically conductive.
9. An electrical machine as claimed in any preceding claim, in which the lateral ripple spring is made of plastics material.

10. An electrical machine as claimed in any preceding claim, in which the conformable material has enduring elasticity.

11. A method of mounting an armature bar in a slot in a core, the method including inserting a lateral ripple spring between the bar and the core, providing a flowable precursor of a conformable material in void space between one side surface of the bar and the corresponding side surface of the slot so that the precursor fills the void space, and allowing the precursor to cure to form the conformable material in the void space so as to reduce the thermal resistance between the bar and the core.

12. A method as claimed in claim 11, including providing a layer of the precursor on the said one side surface of the bar before the bar is positioned in the slot.

13. A method as claimed in claim 11 or 12, including providing a layer of the precursor on the said corresponding side surface of the slot before the bar is positioned in the slot.

14. A method as claimed in claim 11, in which, after the bar and the lateral ripple spring have been positioned in the slot, the precursor is injected between the said one side surface of the bar and the corresponding surface of the slot.

15. A method as claimed in claim 14, in which the precursor is injected via the open end of the slot.

16. A method as claimed in claim 15, in which the lateral ripple spring has transverse or oblique troughs extending towards the open end of the slot, the precursor being injected into the gap containing the lateral ripple spring.

17. A method as claimed in claim 14, in which the precursor is injected via vent channels of the core.

18. A method as claimed in claim 17, in which the lateral ripple spring has longitudinal troughs extending longitudinally of the bar, the precursor being injected into the gap containing the lateral ripple spring.

19. A method as claimed in claim 18, in which at least a proportion of the precursor is injected beyond at least one longitudinal end of the lateral ripple spring.

20. A method as claimed in claim 16 or 18, in which the amount of precursor injected is just sufficient to fill the troughs of the installed lateral ripple spring.

21. A method as claimed in claim 11, including applying the precursor to troughs on at least one side of the lateral ripple spring before inserting it between the bar and the core.

22. A method as claimed in claim 21, in which the amount precursor applied is just sufficient to fill the troughs when the lateral ripple spring has been inserted between the bar and the core.

23. A method as claimed in claim 14, 18, 20, 21, or 22, including measuring the clearance between the bar surface and the slot surface between which the lateral ripple spring is to be inserted, after the bar has been positioned in the slot, and determining the amount of precursor to be applied or injected on the basis of the measured clearance.